**APPLICATION OF**

**VIRGINIA ELECTRIC AND POWER COMPANY D/B/A DOMINION VIRGINIA POWER** **CASE NO. PUE-2001-00154**

**For a certificate of public convenience and necessity for facilities in Loudoun County: Beaumeade-Beco 230 kV Transmission Line and Beaumeade-Greenway 230 kV Transmission Line**

# REPORT ON REMAND OF ALEXANDER F. SKIRPAN, JR., HEARING EXAMINER

**January 10, 2003**

Virginia Power seeks to construct two single-circuit 230 kV transmission lines in eastern Loudoun County. In its Order dated June 27, 2002, the Commission approved construction of both transmission lines and remanded the case to the Hearing Examiner for further consideration of the placement of transmission facilities along the W&OD Trail.

## HISTORY OF THE CASE ON REMAND

On March 15, 2001, as revised on March 23, 2001, Virginia Electric and Power Company d/b/a Dominion Virginia Power ("Virginia Power" or "Company") filed an application for approval and certification of two electric transmission lines in eastern Loudoun County. The first transmission line would connect the proposed new Beco Substation to the existing Beaumeade Substation ("Beco Line"). The second transmission line would connect the proposed new Greenway Substation to the existing Beaumeade Substation ("Greenway Line"). By Commission orders dated April 9 and 12, 2001, the Commission docketed the application; appointed a hearing examiner to conduct further proceedings; established a procedural schedule for the filing of prepared testimony and exhibits; scheduled a hearing in Leesburg, Virginia; and directed Virginia Power to provide public notice of its application.

On January 25, 2002, this Examiner filed his Report, recommending approval of the two transmission lines. For the Beco Line, I recommended approval of the route proposed by Virginia Power, as revised on July 16, 2001. For the Greenway Line, I recommended a route designated as Segment 20-a.[1] On June 27, 2002, in its Order Granting Approval and Remanding for Further Proceedings, the Commission found that Virginia Power established the need for the two proposed transmission lines and that it should follow the routes recommended by the

[1] Segment 20-a, would run 0.6 miles eastward from the Beaumeade Substation along the Washington and Old Dominion Trail ("W&OD Trail"); then south for 0.8 miles along the edge of the proposed Broad Run Golf Course, cross Waxpool Road between Broad Run and the proposed Beaumeade Business Park, continue along Broad Run to the MCI WorldCom property line, and follow the MCI WorldCom property line to the Greenway Substation. *See* Exhibit JBB-49, at 6; Exhibit JBB-94, Attachment JBB-R2.

Hearing Examiner. However, the Commission remanded the case to the Hearing Examiner for further proceedings limited to the specific placement of transmission facilities for the Greenway Line along the W&OD Trail.

On July 15, 2002, and on August 15, 2002, Virginia Power held meetings to which all interested parties and affected property owners were invited for the purpose of reaching a consensus on placement of the transmission facilities along the W&OD Trail.[2] Participants in these meetings included representatives from Virginia Power; Northern Virginia Regional Park Authority ("Park Authority"); City of Fairfax ("City"); Lerner Enterprise ("Lerner"); Cabot Industrial ("Cabot"); and Intelligent Decision ("Intelligent").[3] The interested parties and affected property owners were unable to reach a consensus.

On September 5, 2002, the Hearing Examiner scheduled a hearing on October 7, 2002, and provided for the filing of comments on or before September 27, 2002. The service list for this and all subsequent rulings was expanded to include all property owners near this section of the W&OD Trail, including: Akridge Real Estate Services ("Akridge"); Interstate Worldwide ("Interstate"); Intelligent; Ridgeview Business Center II; Lerner; and Power Acquisitions, Inc. Akridge, Interstate, and Lerner filed comments in opposition to siting the transmission line south of the W&OD Trail, in which they maintained that such an alignment would have a detrimental impact on their businesses.

On September 17, 2002, Virginia Power filed a Motion to Change the Procedural Schedule, in which it requested: (i) the hearing be rescheduled to October 15, 2002; (ii) the date for filing comments or testimony be extended to October 4, 2002; and (iii) the parties be given an opportunity to file rebuttal comments or testimony on or before October 10, 2002. A Hearing Examiner's Ruling dated September 18, 2002, granted Virginia Power's Motion to Change the Procedural Schedule.

On October 15, 2002, the evidentiary hearing on remand was held as scheduled. Guy T. Tripp, III, Esquire, represented Virginia Power. Charles L. Shumate, Esquire, appeared on behalf of the City. Cliona Robb, Esquire, appeared on behalf of the Park Authority. Wayne N. Smith, Esquire, represented the Staff. Filed with this Report on Remand are transcripts from the October 15 hearing.

**SUMMARY OF THE RECORD ON REMAND**

On October 4, 2002, Virginia Power filed the testimony of two witnesses in support of its proposal to site a new transmission line approximately twenty feet inside the northern boundary of the one hundred-foot wide W&OD Trail corridor. John B. Bailey, coordinator of siting and permitting for Virginia Power, stated that placing the four transmission poles approximately twenty feet inside the northern boundary of the W&OD trail uses an existing right-of-way and has the least environmental impact.[4] Mr. Bailey explained that the City's water pipeline was

[2] Bailey, Tr. at 1074.
[3] *Id.* A representative from Intelligent attended only the meeting on August 15, 2002.
[4] Exhibit No. 95, at 2.

located in a twenty-foot easement located adjacent to the W&OD Trail's northern boundary.[5] Virginia Power proposes to place the four new transmission poles just outside of the City's easement.[6] Further, Mr. Bailey testified that the new line would run eastward from Beaumeade Substation for about 0.7 miles, just north of the existing double circuit Beaumeade-Sterling Park Line.[7] Because of the proximate locations of the lines, Virginia Power proposes to use the new line to connect the Beaumeade and Beco Substations. Also, Virginia Power would reconfigure the existing double circuits to connect the Beaumeade and Greenway Substations, connect the Sterling Park and Beco Substations, and maintain a direct circuit between the Beaumeade and Sterling Park Substations.[8]

Mr. Bailey stated that Virginia Power and the City have an agreement concerning protection of the City's water pipeline.[9] Among other things, the Company will not conduct any blasting, cross the water pipeline with any heavy equipment, or excavate or grade on the water pipeline easement.[10] In addition, Mr. Bailey indicated that he met with City officials who stated the City had no objections to Virginia Power installing four transmission poles immediately south of the City's easement, provided Virginia Power complies with the terms of its agreement with the City.[11]

As to the impact of the four new transmission poles on the existing paved and unpaved paths located within the W&OD Trail, Mr. Bailey testified that the transmission pole to be located closest to the bridge on which both paths cross the Loudoun Parkway, would be eight feet north of the unpaved path.[12] The other three transmission poles would be in, or partially in, the ten-foot unpaved path, which will require relocation of that section of that path.[13] In addition, Mr. Bailey confirmed that construction of the new line would require the removal of the existing trees and vegetation along the northern edge of the corridor.[14] However, Virginia Power has permission to plant replacement screening trees on the property immediately north of this section of the W&OD Trail.[15]

Finally, Mr. Bailey maintained placement of the new line within its W&OD Trail right-of-way meets the requirements of § 56-46.1 C, which requires the use of existing rights-of-way unless the Company is able to "provide adequate evidence that existing rights-of-way cannot adequately serve the needs of the company."[16]

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[5] *Id.* at 2-3.
[6] *Id.* at 3.
[7] *Id.* at 3, Attached Exhibit JBB-1 (Remand).
[8] *Id.* at 3-4, Attached Exhibit JBB-1 (Remand).
[9] *Id.* at 4; *See* Exhibit Fairfax-38.
[10] Exhibit No. 95, at 4.
[11] *Id.* at 5.
[12] *Id.*
[13] *Id.*
[14] *Id.* at 6.
[15] *Id.*
[16] *Id.* at 6-7.

John E. Vonier, transmission engineer for Virginia Power, discussed the placement of the proposed four new transmission poles along the W&OD corridor.[17] Mr. Vonier explained that because the W&OD Trail corridor is only one hundred feet wide, and because of the twenty-foot water pipeline easement along the northern boundary and the existing double circuit 230 kV transmission line along the southern boundary, there are few options for locating the new transmission poles on the corridor.[18] Mr. Vonier described the proposed four new transmission poles as 110 feet in height, approximately four feet in diameter at their base, with a concrete foundation of not more than eight feet in diameter.[19]

In addition, Mr. Vonier confirmed that the Company's proposed configuration is satisfactory from an electric system design perspective.[20] The proposed configuration will provide direct 230 kV circuits between Beaumeade and Beco Substations, Beco and Sterling Park Substations, Beaumeade and Sterling Park Substations, and Beaumeade and Greenway Substations.[21]

On October 3, 2002, the City filed comments supporting the placement of the new transmission facilities south of the W&OD Trail to minimize the impact on the City's water pipeline and to minimize the adverse impact Virginia Power's suggested route would have on the W&OD Trail.

On October 4, 2002, the Park Authority filed the direct testimony on remand of Paul McCray, park manager for the W&OD Trail, and Charles Simmons, a consultant and former vice president-construction and maintenance for Appalachian Power Company ("Appalachian").

Mr. McCray addressed the impact of the proposed new transmission facilities on the W&OD Trail and the surrounding areas.[22] Mr. McCray offered further description of the W&OD Trail, which is used by an estimated three million visitors per year.[23] He pointed out that the eight-foot wide gravel trail located twenty feet south of the northern boundary is used as a bridle path.[24] The ten-foot wide paved trail located fifty feet south of the northern boundary is used for running, biking, roller blading, and cross-country skiing.[25] In addition, Mr. McCray noted that there are existing transmission facilities located seventy feet south of the northern boundary and existing distribution facilities located along the southern boundary.[26] Mr. McCray described the land north of the W&OD Trail as undeveloped, but planned for office and data center uses.[27] Mr. McCray testified that the land south of the W&OD Trail is used for light-

[17] Exhibit No. 98.
[18] *Id.* at 1, Attached Exhibit JEV-1(Remand).
[19] *Id.* at 2.
[20] *Id.*
[21] *Id.*
[22] Exhibit No. 99.
[23] *Id.* at 2; Application Appendix at 29.
[24] Exhibit No. 99, at 2.
[25] *Id.*
[26] *Id.*
[27] *Id.*

industrial purposes such as warehouses.[28] He provided photos of the transmission and distribution facilities and warehouses to the south of the W&OD Trail.[29]

Mr. McCray supported siting the new transmission facilities south of the existing transmission line, where Virginia Power currently has transmission facilities.[30] Mr. McCray testified such an approach would concentrate the impacted viewshed into a single area that is already impacted by existing facilities, and preserve the tree buffer that exists to the north.[31] He argued that placing the new transmission facilities on the W&OD Trail along the water pipeline easement would have a negative impact on the W&OD Trail because the transmission facilities: (i) would be visible from all public areas; (ii) would eliminate the thick northern tree buffer; (iii) would impact vegetation between the paved and gravel paths; (iv) would likely involve construction and maintenance activity along both the paved and gravel paths; and (v) may disturb the City's water pipeline.[32] Mr. McCray pointed out that a similar grouping of electric facilities along the southern border of the W&OD Trail and on private land just to the south of the W&OD Trail was used in portions of Reston.[33] Finally, Mr. McCray argued that the availability of existing right-of-way is only one component that the Commission considers when evaluating and selecting the best route to locate transmission facilities.[34]

Mr. Simmons recommended that Virginia Power site the new transmission facilities south of the W&OD Trail and place the existing distribution facilities on or below the new transmission facilities.[35] That is, Mr. Simmons recommended that Virginia Power either place the distribution lines on the new transmission poles or place the distribution lines underground.[36] Mr. Simmons acknowledged he was aware that Virginia Power opposed using the same structure to support both transmission and distribution lines because of lightning protection, maintenance, and operational issues.[37] Further, Mr. Simmons recognized that the *Lightning Protection Manual for Rural Electric Systems* ("*Lightning Protection Manual*")[38] supports the general proposition that tall steel towers attract lightning, and therefore utilities should generally avoid placing distribution facilities on such towers.[39] However, Mr. Simmons contended the *Lightning Protection Manual* recognizes that there are situations in which distribution facilities are placed on such towers. It recommends specific methods, such as lightning arrestors, to prevent a flashover to distribution lines located on transmission structures.[40] Mr. Simmons stated that the new transmission facilities would be located in an area that receives less lightning flashes than

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[28] *Id.*
[29] *Id.* at Attached Exhibit 5 A through D.
[30] *Id.* at 5.
[31] *Id.* at 5-6.
[32] *Id.* at 7.
[33] *Id.*
[34] *Id.* at 7-8.
[35] Exhibit No. 101.
[36] *Id.* at 2.
[37] *Id.*
[38] National Rural Electric Cooperative Association (1993).
[39] Exhibit No. 101, at 4.
[40] *Id.*

other areas of Virginia and North Carolina.[41] Mr. Simmons provided photographs of distribution lines attached to transmission poles within Virginia Power's service territory.[42] In addition, Mr. Simmons provided other examples of distribution lines underbuilt on transmission facilities outside Virginia Power's service territory, including the City of Salem; Morehead City-Wilmington, North Carolina; and Nashville, Tennessee.[43]

On October 10, 2002, Virginia Power filed the rebuttal testimony on remand of Mr. Bailey; Donald E. Koonce, consulting engineer in the Company's Northwest Transmission and Distribution Reliability Department of Electric Transmission and Distribution; and David M. Burnam, engineer in the Company's Transmission and Distribution Planning Department.

Mr. Bailey responded to Park Authority witness McCray's recommendation to place the new transmission line just outside the south side of the W&OD Trail and also responded to the City's concerns regarding its water pipeline.[44] Mr. Bailey contended that a new transmission line south of the W&OD Trail would intrude on existing parking areas and eliminate the tree screening between these commercial facilities and the W&OD Trail.[45] To show the impact of the proposed transmission line on existing commercial development south of the W&OD Trail, Mr. Bailey provided an aerial video of the W&OD Trail between the Beaumeade Substation and the Loudoun Parkway (*i.e.*, the portion of the W&OD Trail impacted by the proposed transmission line).[46] Mr. Bailey testified that locating the transmission south of the W&OD Trail would require the purchase of new right-of-way, which he estimated would cost in the range of $3 to $3.5 million.[47] Mr. Bailey pointed out that Virginia Power has the right to install additional transmission facilities within the W&OD Trail corridor without incurring additional cost.[48] Further, he maintained that the deed by which Virginia Power conveyed the W&OD Trail to the Park Authority requires only that Virginia Power minimize, not eliminate, adverse impact caused by expansion or alteration of its facilities.[49] Mr. Bailey conceded most of the five specific negative impacts of the Company's proposed route, but submitted that loss of the northern tree buffer will be mitigated by the additional screening Virginia Power will plant north of the W&OD Trail.[50]

With respect to the City's comments, Mr. Bailey expressed the Company's surprise and offered an e-mail received from John Boryschuk, utility engineer for the City, in which he stated, among other things, that "[a]s long as the City retains the right to review design drawings, proposed construction methods, equipment to be used, and other pertinent issues, we have no

[41] *Id.* at 5-6.
[42] *Id.* at Attached Exhibit E.
[43] *Id.* at 7-8, Attached Exhibit F.
[44] Exhibit No. 97.
[45] *Id.* at 1-2.
[46] *Id.* at Attached Exhibit JBB-1 (Remand Rebuttal).
[47] *Id.* at 2.
[48] *Id.* at 3-4.
[49] *Id.* at 4-5.
[50] *Id.* at 5-6.

objection to any of the proposed routes."[51] Mr. Bailey emphasized that the Company proposes to place the new transmission line on its right-of-way and not within the City's easement.[52]

Mr. Koonce responded to the testimony of Park Authority witness Simmons concerning the feasibility of locating existing distribution facilities on the new transmission facilities.[53] Mr. Koonce testified Virginia Power opposes placing distribution lines on transmission poles in this case for the following reasons: (i) there is no need to disturb the existing distribution lines and purchase additional right-of-way when the proposed four transmission poles can be placed on the W&OD Trail with minor relocation of the gravel path;[54] (ii) reduced reliability of the distribution line due to the risk of lightning backflash;[55] (iii) safety concerns related to workers required to climb through or work above the distribution circuits;[56] and (iv) reduced reliability of transmission circuits.[57] Moreover, Mr. Koonce observed that the Company's transmission/distribution line shown in Mr. Simmons' testimony was constructed in 1990 to avoid the purchase of additional right-of-way.[58] Mr. Koonce contended that the reliability experience with that line makes the Company more reluctant to use such a configuration and that such a configuration requires transmission poles that are approximately twenty feet taller than those proposed by Virginia Power in this case.[59]

Mr. Burnam focused on the distribution facilities currently located south of the W&OD Trail and the issues associated with relocating these facilities to make room for a new transmission line.[60] Currently, Virginia Power has two three-phase 34.5 kV distribution circuits on a pole line that originates at the Beaumeade Substation and runs parallel to the existing 230 kV transmission line south of the W&OD Trail.[61] Mr. Burnam testified that the Company serves approximately 62 customers by direct taps to the existing distribution line and uses the distribution line to provide back-up service to another 1,325 customers.[62] Mr. Burnam asserted that if the existing distribution lines were moved to new transmission poles, two new substitute distribution circuits would be necessary to provide electricity to customers while the existing distribution lines are removed and the transmission line is constructed.[63] Further, Mr. Burnam explained that the new substitute distribution circuits would have to be built where the Company proposes to install the new transmission line or a little more than twenty feet inside the northern boundary of the W&OD Trail.[64] Mr. Burnam estimated the cost of relocating the existing

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[51] *Id.* at 6-7, Attached Exhibit JBB-3 (Remand Rebuttal).
[52] *Id.* at 8.
[53] Exhibit No. 104.
[54] *Id.* at 2.
[55] *Id.* at 2-4.
[56] *Id.* at 4-5.
[57] *Id.* at 5.
[58] *Id.* at 6.
[59] *Id.*
[60] Exhibit No. 103.
[61] *Id.* at 2.
[62] *Id.* at 3.
[63] *Id.* at 3.
[64] *Id.* at 3-4.

distribution line would be between $300,000 and $400,000. Because the substitute distribution line would be built to comply with all applicable standards, Mr. Burnam stated that such a line would be a permanent replacement for the existing distribution line.[65]

On October 10, 2002, the Park Authority filed the rebuttal testimony on remand of Messrs. McCray and Simmons. Mr. McCray took issue with several statements in the direct testimony on remand filed by Virginia Power.[66] Mr. McCray disagreed with Mr. Bailey's assessment that Virginia Power's proposed routing would create the least environmental impact.[67] Mr. McCray argued that the optimal combination for the W&OD Trail, its users, and the City's water pipeline is to place the new transmission facilities south of the Park's border.[68] In addition, Mr. McCray complained that when Virginia Power rebuilt a 1.35-mile section of transmission line on the W&OD Trail near Reston, both paths were blocked during the construction process and the paved trail required a realignment. Neither situation was indicated on the Company's work plan.[69] Because Virginia Power's letter agreement with the City does not permit any heavy equipment to cross the water pipeline, Mr. McCray advised that the Company will not be able to keep the trail open during construction.[70] Finally, Mr. McCray observed that Virginia Power's proposal to replace tree screening planted north of the W&OD Trail may screen the proposed data centers from the W&OD Trail, but will provide no screening of the transmission poles from the W&OD Trail.[71]

Mr. Simmons responded to Company witness Bailey's assertion that Virginia Power is required to use existing rights-of-way if available.[72] Mr. Simmons testified his experience has been that the intent of legislation cited by Mr. Bailey is to prevent construction in pristine or undeveloped areas where it is feasible to build on or adjacent to existing facilities.[73] Mr. Simmons argued that following Virginia Power's interpretation and locating the facilities on an existing right-of-way, causing greater environmental impact, would turn the purpose of the siting legislation on its head.[74] Further, Mr. Simmons contended that collocating the new transmission line with the existing distribution lines on or near the centerline of the existing distribution line right-of-way would take advantage of existing right-of-way and have minimal environmental impact.

**DISCUSSION ON REMAND**

The issue remaining to be resolved on remand is a choice between two options for placement of four transmission poles in or along the W&OD Trail. The first option or northern

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[65] *Id.* at 5.
[66] Exhibit No. 100.
[67] *Id.* at 2.
[68] *Id.* at 2-3.
[69] *Id.* at 3-5, Attached Exhibit A.
[70] *Id.* at 5.
[71] *Id.*
[72] Exhibit No. 102.
[73] *Id.* at 1.
[74] *Id.* at 1-2.

route, advocated by Virginia Power, would locate the transmission poles a little over twenty feet inside the northern boundary of the W&OD Trail. The second option or southern route, recommended by the Park Authority and the City, would locate the transmission poles in the distribution right-of-way just south of the W&OD Trail. The second option is consistent with the recommendation contained in the January 25, 2002, Hearing Examiner's Report.[75]

Section § 56-46.1 B provides as a condition of approval that the "Commission shall determine that the line is needed and that the corridor or route the line is to follow will reasonably minimize adverse impact on the scenic assets, historic districts and environment of the area concerned." In its Order Granting Approval and Remanding for Further Proceedings, the Commission found that Virginia Power established the need, thus the focus of this remand proceeding is choosing the route that "will reasonably minimize adverse impacts on the scenic assets, historic districts and environment of the area concerned." Further, § 56-46.1 C directs the applicant to "provide adequate evidence that existing rights-of-way cannot adequately serve the needs of the company." Similarly, § 56-259 C requires "[p]rior to acquiring any easement of right-of-way, public service corporations will consider the feasibility of locating such facilities on, over, or under existing easements of rights-of-way."

Because Virginia Power found that its existing right-of-way on the W&OD Trail was adequate, the Company argued that it could not provide evidence as required by § 56-46.1 C "that existing rights-of-way cannot adequately serve the needs of the company."[76] Likewise, Virginia Power argued that it has considered the feasibility of locating the four new transmission poles on its existing easement of right-of-way on the W&OD Trail, as required by § 56-259 C, and determined that it is not only feasible, but is the preferable location.[77]

The Park Authority pointed out that Virginia Power's assessment of the adequacy of existing rights-of-way does not limit the Commission's discretion to minimize adverse environmental impact by choosing another route.[78] In *VEPCO v. Citizens*[79] the Virginia Supreme Court rejected an interpretation of § 56-46.1 that would preclude Commission review of construction of transmission facilities whenever a utility decides to use an existing corridor.[80] The court found that such an interpretation was "an irrational construction contrary to the intent of the statute as a whole."[81] The court explained the intent of the statute as follows:

> The language in issue deals with the situation where a utility's application to clear a new right-of-way is contested. It merely places the burden on the utility to show that an existing right-of-way cannot be used. This is consistent with the view that in most cases upgrading an existing corridor will be less damaging

[75] *See* Hearing Examiner's Report at 42.
[76] Virginia Power Brief on Remand at 2.
[77] *Id*. at 2-3.
[78] Park Authority Rebuttal Comments at 2; Park Authority Brief on Remand at 2-3.
[79] 222 Va. 866 (1981) ("*Citizens*").
[80] *Id.* at 869.
[81] *Id.*

> than clearing a new one. There is nothing in the statute, however, that indicates this will always be the case and that when a utility wishes to use an existing corridor its judgment cannot be challenged. Therefore, the Commission had the power to review the environmental impact of upgrading the existing . . . corridor . . . .[82]

The facts in this case are similar to the situation addressed in *Citizens.* Virginia Power proposes using an existing right-of-way or corridor and other parties maintain that use of the existing right-of-way would have greater environmental impacts than an alternative route. Thus, this report on remand will focus on determining which route "will reasonably minimize adverse impacts on the scenic assets, historic districts and environment of the area concerned."[83]

Based on the record in this case, including the record developed on remand, the northern route would have the advantage of using an existing right-of-way and minimizing the impact of the transmission line on existing businesses south of the W&OD Trail. On the other hand, the southern route would have the advantages of: (i) saving the mature trees and dense vegetation along the northern border of the W&OD Trail; (ii) concentrating the impacted viewshed to a single area, which already is impacted by existing transmission facilities; (iii) avoiding construction on the W&OD Trail and near the City's water pipeline; and (iv) avoiding relocation of the gravel trail. In weighing the relative advantages of the two routes, the discussion will center on (i) rights-of-way, (ii) the impact on existing businesses, (iii) the impact on the W&OD Trail, and (iv) the feasibility of collocating the transmission and distribution facilities.

**Rights-of-Way**

Though both the northern and southern routes utilize existing rights-of-way, collocating the transmission line with the existing distribution line likely will require the purchase of some additional rights-of-way by Virginia Power. That is, despite the presence of an existing distribution right-of-way, south of the W&OD Trail, Virginia Power witness Koonce stated that the Company would be required to purchase an additional fifty-foot right-of-way south of the W&OD Trail if the southern route is chosen.[84] Virginia Power witness Bailey estimated that the additional right-of-way would cost $3 to $3.5 million to purchase.[85] When questioned whether the existing distribution right-of-way was large enough to accommodate the collocation of the transmission line, Mr. Koonce explained that the existing easement may not be adequate from a legal perspective.

> I'm not familiar with the detailed rights contained in the easement agreement that covers that distribution line, so I can't say whether that easement agreement would be adequate for the placement of the transmission line.

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[82] *Id.*
[83] Va. Code § 56-46.1 B.
[84] Koonce, Tr. at 1178-79.
[85] Exhibit No. 97, at 2.

> Typically speaking, our distribution easements are not adequate for placement of a transmission line of this magnitude, with these span lengths. . . . ["Not adequate" may refer to] width or quite often some of the distribution rights acquired many years ago would not allow us to put a transmission line on that easement. There is language in the agreements that either have voltage limitations or things that could preclude us from putting the transmission line there, under that agreement.
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> I'm just not familiar with the details of this particular agreement.[86]

On brief, the Park Authority pointed out that if the same spacing and allowances are used for the southern route as Virginia Power proposes for the northern route, located a little over twenty feet inside the northern border of the W&OD Trail, only approximately twenty feet of additional right-of-way would be required south of the W&OD Trail.[87] The Park Authority argued that acquiring twenty feet of additional right-of-way should not require considerable expense because the land is encumbered presently by an existing distribution line and its associated easement.[88]

For purposes of weighing the two proposed routes, I find that use of the southern route likely will require the purchase of additional rights-of-way for the transmission line. However, I find that the rights-of-way that may need to be purchased should fall substantially within its existing distribution right-of-way. Therefore, issues regarding rights-of-way tend to favor, but not substantially, the northern route.

**Impact on Existing Businesses**

Comments received from existing businesses located south of W&OD Trail favor the northern route. There are no existing businesses immediately north of the W&OD Trail. Based on the Company's aerial video, the existing businesses located south of the W&OD Trail are along the western end of the proposed route, where the proposed line leaves the Beaumeade Substation.[89] If the spacing of the new transmission poles is similar to the spacing of the transmission towers for the existing transmission line along the W&OD Trail, then two of the four transmission poles will be located near the existing businesses.[90]

Based on the record, the only direct impact a collocated transmission and distribution line would have on the existing businesses would be the placement in a parking lot of one or two of

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[86] Koonce, Tr. at 1177-78.
[87] Park Authority Brief on Remand at 8-12.
[88] *Id.* at 12.
[89] *See* Exhibit No. 97 Attached Exhibit JBB-1.
[90] *Id.*

the four-foot transmission poles.[91] Park Authority witness Simmons testified that to the extent new distribution poles would be required to be located in a parking lot, an existing distribution pole would likely be removed.[92] In addition, on brief, Virginia Power argued that the current shrub buffer between the existing buildings and the existing transmission line would have to be removed.[93] Because of the existing buildings, parking areas, and required clearances, the Company asserted that if the southern screening is removed, it cannot be replaced.[94] However, Park Authority witness McCray contended that the current shrub buffer between the existing buildings and the existing transmission line is designed for the existing distribution line.[95] Thus, the same vegetation screen could be used if the new transmission line is collocated with the existing distribution line.

The various photos of the area between the existing distribution lines and the buildings show this to be parking and rear alleyway areas.[96] Collocating the transmission line with the distribution line should have minimal impact on parking and screening. Nonetheless, the taller transmission poles and construction activity would likely have a negative impact on the existing businesses south of the W&OD Trail. Therefore, some weight should be accorded this impact in favor of the northern route.

**Impact on the W&OD Trail**

Though the parties disagree on the placement of the new transmission line, they generally agree on the impacts to the W&OD Trail of the Company's proposed southern route. The parties tend to agree that placement of the new transmission line along the W&OD Trail as proposed by Virginia Power will: (i) eliminate the northern buffer, (ii) be visible to W&OD Trail users, (iii) create construction-related disruptions and risks, and (iv) necessitate relocation of the gravel trail. However, the disagreement lies in the significance of this impact. For example, Virginia Power and the Park Authority agree the northern route requires removal of the northern buffer on the W&OD Trail. Virginia Power contended that the removal of the northern buffer can be mitigated by planting a new buffer on the property immediately north of this section of the W&OD Trail.[97] In contrast, the Park Authority maintained that because of the presence of the new transmission line, Virginia Power will be unable to replace the existing tall, dense, varied landscape that serves as the northern buffer.[98]

Based on the record in this case, I find that elimination of the northern buffer and visual impact of the new transmission line will significantly and adversely impact this section of the W&OD Trail. Currently, the northern buffer provides substantial screening, virtually cutting off any view from the trail to the north. Elimination of the northern buffer would expose the trail to

[91] Simmons, Tr. at 1144.
[92] *Id.* at 1164.
[93] Virginia Power Brief on Remand at 6-7.
[94] *Id.* at 7.
[95] McCray, Tr. at 1120.
[96] *See* Exhibit No. 99, Attached Exhibits A-F; Exhibit No. 97 Attached Exhibit JBB-1.
[97] Exhibit No. 95, at 6.
[98] McCray, Tr. at 1104-05.

whatever development that may take place to the north. Even if a new buffer is planted on the property immediately north of the W&OD Trail, such a buffer could take years to mature. In addition, the new transmission line running along the W&OD Trail, along with the existing transmission line on the W&OD Trail would create something of a tunneling effect for users of this section of the W&OD Trail. Taken together, these changes would significantly alter the nature of this section of the W&OD Trail.

The construction-related disruptions and risks refer to the disruption in the use of the W&OD Trail during the construction of the new transmission line and the risk of damage to the City's water pipeline. Because of the temporary nature of the construction activities, I find that the impact of construction-related disruptions to the W&OD Trail should be accorded relatively little weight. Further, Virginia Power's letter agreement with the City, and the Company's pledge to work with the City, appear to reduce, but not completely eliminate, the risk to the City's pipeline.

As to the relocation of the gravel trail, I find that some weight should be given to this alteration. The gravel trail is used as a bridle trail. The installation of three metal transmission poles and the alteration of the course of the trail cannot be viewed as positive changes. On the other hand, the gravel trail will continue to be usable as a bridle trail.

**Feasibility of Collocation**

In weighing the impact of the two alternatives, and considering rights-of-way, the impact on existing businesses, and the impact on the W&OD Trail, I find that Virginia Power's proposed northern route along the W&OD Trail would have the greater negative impact. However, Virginia Power argued that it was impractical to collocate the new transmission line with the existing distribution line. According to Virginia Power, such a collocation would be dangerous to construct, require the construction of a temporary distribution line on the W&OD Trail, and reduce reliability.[99]

During the hearing, Virginia Power witness Koonce discussed the operational and safety issues associated with collocating the new transmission line with the existing distribution lines.[100] When excavating the foundations for the transmission poles, typically twenty to thirty feet deep and six to eight feet in diameter, large equipment would have to be operated underneath the existing distribution line.[101] Then, to erect the transmission pole in the same centerline as the distribution lines, Virginia Power would either have to completely relocate the distribution line or take steps to displace the conductors to allow room for the pole to be set.[102] Mr. Koonce asserted that both the presence of the existing transmission line and the mechanics of trying to spread all of the distribution conductors of the double circuit line would be difficult and put life at risk.[103] Finally, Virginia Power would have to string the transmission conductors

[99] *See* Exhibit No. 103; Exhibit No. 104, at 2-6.
[100] Koonce, Tr. at 1172-76.
[101] *Id.* at 1172-74.
[102] *Id.* at 1174-75.
[103] *Id.* at 1174.

under tension and attempt to keep the transmission line from sagging down into the energized distribution below.[104] Thus, Mr. Koonce testified that the Company's preferred method and the safest method of construction would be to de-energize the distribution line.[105] Approximately 1387 customers are served by the existing distribution circuits, with 62 customers served solely by these distribution circuits.[106] Virginia Power witness Burnam contended without a distribution circuit along the W&OD Trail, there would be no existing means of serving those 62 customers.[107]

In addition, Virginia Power objected to collocation of the new transmission and distribution lines based on reduced reliability.[108] Lightning was the principal concern raised by Virginia Power. The Company provided information on the number of lightning flashes during 1999 through 2002 for the area near the W&OD Trail, which showed that the area near Beaumeade Substation experienced between 4 and 16 lightning flashes.[109]

Park Authority witness Simmons testified based on his experience with Appalachian and from his knowledge of projects in other areas, such as in Nashville, Tennessee, Virginia Power should be able to leave the two distribution circuits in place and take any of a number of steps to collocate the new transmission line while keeping the distribution circuits energized.[110] Indeed, Mr. Simmons reported that the contractor for the Nashville installation stated he could do this job safely.[111] Mr. Simmons explained that fiberglass arms could be used to spread the energized conductors apart to set a pole between them, or conductors could be pulled over to a temporary pole.[112] Moreover, Mr. Simmons observed that if Virginia Power de-energized the existing double circuit distribution line, it would not need to construct another double circuit distribution line to serve only 62 customers.[113] Mr. Simmons reiterated that Virginia Power could always put the distribution circuits underground.[114]

Mr. Simmons stressed that from a maintenance standpoint, the practices Virginia Power uses to work with the double circuit distribution line would be similar to the practices used for maintenance on the collocated distribution lines.[115] Mr. Simmons stated that transmission lines of this type require little in the way of periodic maintenance, other than inspection, which can be done without climbing the poles.[116] Finally, Mr. Simmons addressed the lightning and reliability

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[104] *Id.* at 1175.
[105] *Id.*
[106] Exhibit No. 103, at 3.
[107] *Id.*
[108] Exhibit No. 104.
[109] *Id.* Attached Exhibit DEK-1.
[110] Simmons, Tr. at 1157-59.
[111] *Id.* at 1163-64.
[112] *Id.* at 1157.
[113] *Id.* at 1158.
[114] *Id.* at 1157-58.
[115] *Id.* at 1152, 1163.
[116] *Id.* at 1152.

issues by recommending the installation of lightning arrestors on every phase of the distribution line on every transmission structure.[117]

In evaluating the record, I find relocation of the distribution line to the W&OD Trail, as described by Virginia Power witness Burnam, would negate completely any advantage of the southern route for the transmission line. However, based on the testimony of Park Authority witness Simmons, I find that Virginia Power should be able to safely collocate the new transmission line without de-energizing the existing distribution line. Even if it were eventually determined that the distribution line needed to be de-energized to construct safely the new transmission line, Virginia Power would need only to relocate distribution facilities to serve the 62 customers served exclusively from the current distribution circuits. These customers could be served from temporary poles located near the existing distribution line. Moreover, Virginia Power does have the option of burring the distribution circuits. In summary, Virginia Power has failed to provide convincing evidence that it is impractical to collocate the new transmission line with the existing distribution line south of W&OD Trail.

## FINDINGS AND RECOMMENDATIONS

In conclusion, based on the evidence and for the reasons set forth above, I find that the remaining four transmission poles should be collocated with the existing distribution line south of the W&OD Trail. Such an alignment will reasonably minimize adverse impact on the scenic assets, historic districts and environment of the area concerned. In accordance with the above finding, ***I RECOMMEND*** that the Commission enter an order that:

1. ***ADOPTS*** the findings in this Report on Remand; and

2. ***DISMISSES*** this case from the Commission's docket of active cases.

## COMMENTS

The parties are advised that pursuant to Rule 5 VAC 5-20-120 C of the Commission's Rules of Practice and Procedure, any comments to this Report on Remand must be filed with the Clerk of the Commission in writing, in an original and fifteen copies, within twenty-one days from the date hereof. The mailing address to which any such filing must be sent is Document Control Center, P. O. Box 2118, Richmond, Virginia 23218. Any party filing such comments

[117] *Id.* at 1148-49.

shall attach a certificate to the foot of such document that copies have been mailed or delivered to all other counsel of record and to any party not represented by counsel.

Respectfully submitted,

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Alexander F. Skirpan, Jr.
Hearing Examiner

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